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TITLE: CONVERTER REFINING METHOD OF
IMPROVED SECONDARY
COMBUSTION RATIO
PUBN-DATE: September 1, 1989

INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To enhance a secondary combustion ratio and to increase the compounding ratio of

scrap by specifying the height position of a lance nozzle having main holes and auxiliary holes and specifying the angle of the oxygen jet to be flown through the auxiliary holes and the oxygen flow rate ratio thereof.

CONSTITUTION: Converter refining is executed by using the lance nozzle 1 having the main holes 2 (about ≥ 3 holes) and the auxiliary holes (about ≥ 4 holes), blowing the oxygen for refining through the main holes 2 and the oxygen for secondary combustion through the auxiliary holes 3 and burning the gaseous CO generated in the furnace. The front end of the lance nozzle 1 is disposed at a height of at least $\geq 3\text{m}$, more preferably 3~5m from a steel bath surface at this time. The angle of the oxygen jet to be blown through the auxiliary holes 3 is specified to $30\sim 60^\circ$ with perpendicular and the oxygen flow rate ratio through the auxiliary holes expressed by the equation (the total oxygen flow rate = the oxygen flow rate through the main holes + the oxygen flow rate through the auxiliary holes) is specified to 65~80%. The secondary combustion rate is thereby increased up to 70% max. and the compounding ratio of the slag is additionally increased as well.

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